

Abstract of the Disclosure

Systems and methods for detecting and measuring cardiac contractile function of a heart using an acceleration sensor unit inserted within the heart, such as within a vein of the cardiac wall are disclosed. The systems and methods involve detecting the occurrence of electrical events within the patient's heart by inserting and positioning an implantable lead having an electrode near a cardiac wall as well as detecting mechanical events within the patient's heart by then inserting and positioning a cardiac motion sensor unit through the inner lumen of the implantable lead. Furthermore, the systems and methods do not require dedicated leads and may be used with preexisting implantable leads.

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